

Work Order ID 76729-2

November-21-11 8:21:39 AM

\*76729\*

U/R

Page 1

Item ID: D2940-1

Revision ID: U/R

Item Name: Support

Start Date: 21/11/2011 Start Qty: 20.00

Required Date: 03/01/2012 Req'd Qty: 20.00

Reference:

Accept

\*N9000040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Cust Item ID:

Customer:

Approvals:

Process Plan: M.L.J

Date: 11/11/21

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2940

C

100

0.00

\*100\*

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Machine as per Folio FA079  
2-Deburr

110

0.00

\*110\*

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

120

0.00

\*120\*

QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 76729

November-21-11 8:21:39 AM

**\*76729\***

Page 2

Item ID: D2940-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: U/R Stop **\*NS2\***  
 Item Name: Support  
 Start Date: 21/11/2011 Start Qty: 20.00 **\*20\*** Cust Item ID:  
 Required Date: 03/01/2012 Req'd Qty: 20.00 **\*20\*** Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

**\*130\***

HandFXtube

Hand Finishing Crosstubes

**Memo**

Per note 8 on page 1 of dwg D2940, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24h of cure time.

0.00

0.00

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

140

**\*140\***

QC

Quality Control

QC3- Inspect Part Finish

**Memo**

0.00

0.00

170

**\*170\***

Packaging

Packaging

Identify as per dwg & Stock Location: x-tube

**Memo**

Ass'y

0.00

0.00

*Handwritten signature*

11-12-07

*Handwritten circled 10*

*Handwritten 11.12.12*

*Handwritten signature*

*Handwritten 11 12 12 (10)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 76729

\*76729\*

Page 3

November-21-11 8:21:39 AM

Item ID: D2940-1 Accept \*N9000040100\* Setup Start \*NS1\*  
 Revision ID: U/R Stop \*NS2\*  
 Item Name: Support

Start Date: 21/11/2011 Start Qty: 20.00 \*20\* Cust Item ID:  
 Required Date: 03/01/2012 Req'd Qty: 20.00 \*20\* Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
*180*									
QC	Memo	0.00							
Quality Control									

11/12/13  
 MF 11-12-12



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

November-21-11 8:21:43 AM

Page 1

Work Order ID: 76729

\*76729\*

Parent Item: D2940-1

\*D2940-1\*

Parent Item Name: Support

Start Date: 21/11/2011

Required Date: 03/01/2012

Start Qty: 20.00

Required Qty: 20.00

## Comments:

IPP C 02.11.26 Reformat; Added P/OKJ  
 IPP Rev:D Added priming as per Rev B 07-04-30 JLM  
 IPP E 08.03.19 Re-format Ec verified by DD  
 IPP Rev:F 08-10-22 add qc14 DD verified by:EC  
 11.08.04 as per dwg rev,C DD ver:EC  
 IPP Rev:G

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK081		Manufactured	No			110	Each	4.0000	0.5	10.52632			

\*DSK081\*

D2940-1 TURNING DETAIL

\*\*

## Location

## Loc Qty

## Loc Code

MAT020

4

69717

4

76408

10

10

ISC

11/12/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DART AEROSPACE LTD		Work Order:	76729
Description: Ø3.250 Support		Part Number:	D2940-1
Inspection Dwg: D2940	Rev: B	Page 1 of 1	

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.240	0.260		.250	.250	.250	.250	.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	0.140	0.160		.155	.155	.155	.155	.155
AD	3.510	3.530		3.524	3.524	3.524	3.524	3.524
AE	1.633	1.673		1.660	1.660	1.660	1.660	1.663
AF	1.493	1.513		1.505	1.505	1.505	1.505	1.505
AG	0.040	0.060		.050	.050	.050	.050	.050
AH	0.188	0.193		.188	.188	.188	.188	.188
AI	0.140	0.160		.150	.150	.150	.148	.148
AJ	2.518	2.538		2.528	2.528	2.528	2.528	2.528
AK	0.040	0.060		.050	.050	.050	.050	.050
AL	0.010	0.020		.010	.010	.010	.010	.010
AM	0.140	0.160		.150	.150	.150	.150	.150
AN	0.350	0.450		.400	.400	.400	.400	.400
AO	0.240	0.260		.250	.250	.250	.250	.250
AP	0.150	0.170		.162	.162	.160	.160	.160
AQ	0.053	0.073		.06	.06	.06	.06	.06
AR	101.64	105.64		✓	✓	✓	✓	✓
AS	0.260	0.267		.260	.260	.260	.260	.260
AT	0.053	0.073		.063	.063	.063	.063	.063
AU	4.118	4.138		4.135	4.135	4.138	4.138	4.138
AV								
AW								
Accept/Reject								

Measured by: BF/JL	Date: 11/11/28
Audited by: BA	Date: 11/12/03
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

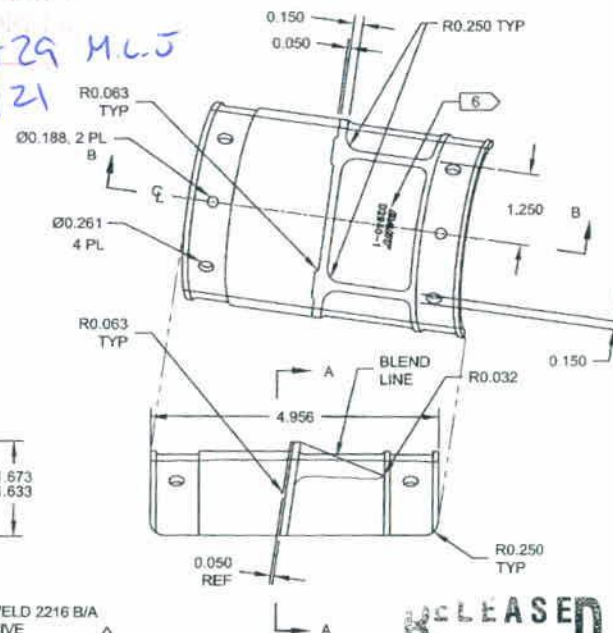
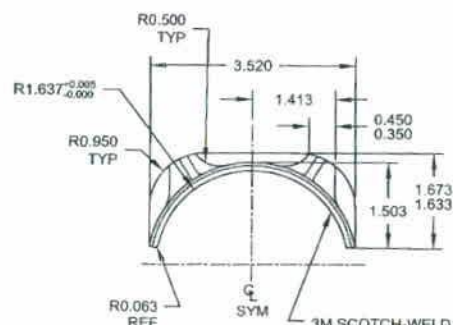
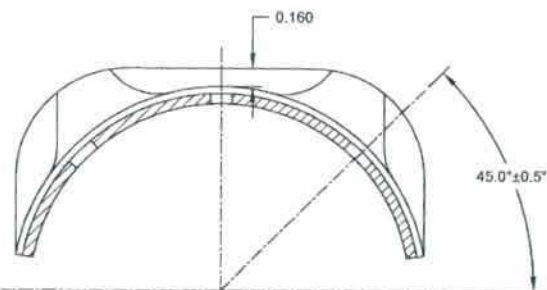
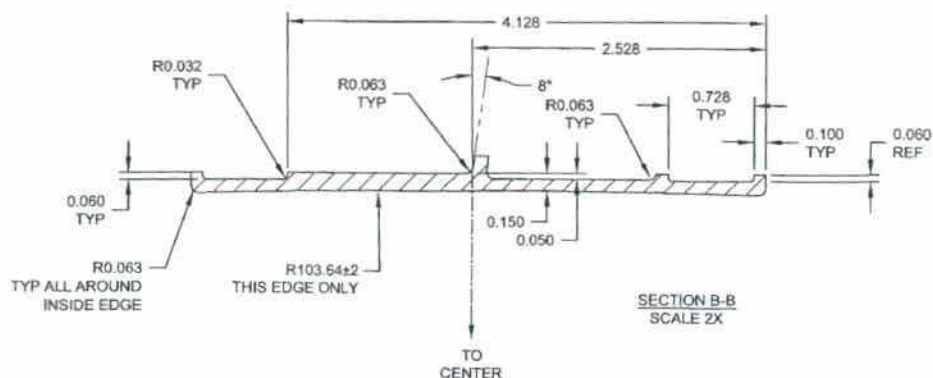
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

160  
W/C  
D

SHOPEX  
RETURN TO  
ENGINEER  
UNCONTROLLED  
SUBJECT TO  
WITHOUT  
WORK  
NO 76729 M.C.J  
11/1/21



RELEASED  
2011-07-28

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION  
MIN UTS = 170 KSI (38 HRC)  
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ±0.010) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP, PER DART QSI 044 6.3.
- 7) WEIGHT: 0.92 lb
- 8) FOR THE ENTIRE INNER CONCAVE SURFACE:  
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.

D2940-1 SUPPORT

C	RMV FINISH, ADD 3M 2216, ADD H925 MATL OPTION	CP	11.07.15
B	UPDATE PER NCR 642, PRIME INSIDE	PH	07.03.13
A	NEW ISSUE	CP	01.01.10
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2940  
SHEET 1 OF 1  
TITLE Ø3.250 SUPPORT  
SCALE NTS

COPYRIGHT © 2001 BY DART AEROSPACE LTD  
THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT IS TO BE USED FOR THE PURPOSES AND DURATION SPECIFIED IN THE ORDER. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order: 76729
Description: Ø3.250 Support		Part Number: D2940-1
Inspection Dwg: D2940	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				16 1	17 2	18 3	19 4	20 5
HAAS Section								
AA	0.240	0.260		.250	.250	.250	.250	.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	0.140	0.160		.150	.150	.150	.150	.150
AD	3.510	3.530		3.522	3.522	3.522	3.522	3.522
AE	1.633	1.673		1.660	1.660	1.660	1.660	1.660
AF	1.493	1.513		1.505	1.505	1.505	1.505	1.505
AG	0.040	0.060		.050	.050	.050	.050	.050
AH	0.188	0.193		.188	.188	.188	.188	.188
AI	0.140	0.160		.150	.150	.150	.150	.150
AJ	2.518	2.538		2.528	2.528	2.528	2.528	2.528
AK	0.040	0.060		.050	.050	.050	.050	.050
AL	0.010	0.020		.010	.010	.010	.010	.010
AM	0.140	0.160		.150	.150	.150	.150	.150
AN	0.350	0.450		.400	.400	.400	.400	.400
AO	0.240	0.260		.250	.250	.250	.250	.250
AP	0.150	0.170		.160	.160	.160	.160	.160
AQ	0.053	0.073		.060	.060	.060	.060	.060
AR	101.64	105.64		✓	✓	✓	✓	✓
AS	0.260	0.267		.260	.260	.260	.260	.260
AT	0.053	0.073		.063	.063	.063	.063	.063
AU	4.118	4.138		4.125	4.125	4.125	4.125	4.125
AV								
AW								
Accept/Reject								

Measured by: BC/DA	Date: 11/12/01
Audited by: 11/12/03 DA	Date: 11/12/03
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	



DART AEROSPACE LTD		Work Order: 76729
Description: Ø3.250 Support		Part Number: D2940-1
Inspection Dwg: D2940	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11 <i>A</i>	12 2	13 <i>S</i>	14 <i>A</i>	15 <i>S</i>
HAAS Section								
AA	0.240	0.260		.250	.250	.250	.250	.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	0.140	0.160		.150	.150	.150	.150	.150
AD	3.510	3.530		3.522	3.522	3.525	3.522	3.522
AE	1.633	1.673		1.660	1.660	1.660	1.660	1.660
AF	1.493	1.513		1.505	1.505	1.505	1.505	1.505
AG	0.040	0.060		.050	.050	.050	.050	.050
AH	0.188	0.193		.188	.188	.188	.188	.188
AI	0.140	0.160		.150	.150	.150	.150	.150
AJ	2.518	2.538		2.528	2.528	2.528	2.528	2.528
AK	0.040	0.060		.050	.050	.050	.050	.050
AL	0.010	0.020		.010	.010	.010	.010	.010
AM	0.140	0.160		.148	.150	.150	.150	.150
AN	0.350	0.450		.400	.400	.400	.400	.400
AO	0.240	0.260		.250	.250	.250	.250	.250
AP	0.150	0.170		.160	.160	.160	.160	.160
AQ	0.053	0.073		.06	.06	.06	.06	.06
AR	101.64	105.64		✓	✓	✓	✓	✓
AS	0.260	0.267		.260	.260	.260	.260	.260
AT	0.053	0.073		.063	.063	.063	.063	.063
AU	4.118	4.138		4.135	4.135	4.135	4.135	4.135
AV								
AW								
Accept/Reject								

Measured by: <i>[Signature]</i>	Date: 11/11/30
Audited by: <i>B.A.</i>	Date: 11/12/03
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM <i>[Signature]</i>	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order: 76729
Description: Ø3.250 Support		Part Number: D2940-1
Inspection Dwg: D2940	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6 1	7 2	8 3	9 4	10 5
HAAS Section								
AA	0.240	0.260		.250	.250	.250	.250	.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	0.140	0.160		.155	.155	.155	.155	.155
AD	3.510	3.530		3.524	3.524	3.524	3.524	3.524
AE	1.633	1.673		1.663	1.663	1.663	1.663	1.663
AF	1.493	1.513		1.505	1.505	1.505	1.505	1.505
AG	0.040	0.060		.050	.050	.050	.050	.050
AH	0.188	0.193		.188	.188	.188	.188	.188
AI	0.140	0.160		.148	.148	.148	.148	.148
AJ	2.518	2.538		2.528	2.528	2.528	2.528	2.528
AK	0.040	0.060		.050	.050	.050	.050	.050
AL	0.010	0.020		.010	.010	.010	.010	.010
AM	0.140	0.160		.150	.150	.150	.150	.150
AN	0.350	0.450		.400	.400	.400	.400	.400
AO	0.240	0.260		.250	.250	.250	.250	.250
AP	0.150	0.170		.160	.160	.160	.160	.160
AQ	0.053	0.073		.06	.06	.06	.06	.06
AR	101.64	105.64		✓	✓	✓	✓	✓
AS	0.260	0.267		.260	.260	.260	.260	.260
AT	0.053	0.073		.063	.063	.063	.063	.063
AU	4.118	4.138		4.138	4.138	4.138	4.138	4.138
AV								
AW								
Accept/Reject								

Measured by: EC / TA	Date: 11/11/29
Audited by: B.A	Date: 11/12/03
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	